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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,960	11/21/2003	Andrew J. Peacock	44904.000750	8022

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EXAMINER
CHEVALIER, ALICIA ANN

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/717,960	PEACOCK, ANDREW J.
	Examiner	Art Unit	
	Alicia Chevalier	1772	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>24 September 2004</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-50</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-50</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/15/04</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1.   After further consideration the restriction requirement, made of record in office action

mailed September 24, 2004, has been withdrawn.

2.   Claims 1-50 are pending in the application.

Claim Objections

3.   Claim 28 is objected to because of the following informalities: "plurality of slits" should

be "multiplicity of slits" to be consistent with claim 24. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahata et al.

(U.S. Patent No. 6,262,331).

Nakahata discloses an absorbent article having a topsheet (*title*) for use in diapers,

incontinent briefs, etc. (*col. 1, lines 9-20*).

Regarding Applicant's claim 1, Nakahata discloses a stretchable web (*extensible

topsheet, col. 13, lines 6-7*) which is deemed to have a top surface and a bottom surface, the web

comprising one or more regions having a plurality of slits (*col. 14, lines 2-3 and figure 2*).

Each slit connects the tops surface to the bottom surface (*col. 14 line 3*). The slits are aligned with their major axes oriented at an angle within 45° of a common direction (*longitudinal direction, col. 14, lines 4-8*) on the web surface (*col. 15, lines 57-59 and figures 2 and 10*). The slits open when a tensile force is applied to the web along the common direction (*col. 14, lined 60-64*).

Applicant's specification discloses that "[i]n a preferred embodiment of the web, the lengths of the major axes of the slits are in the ranges of about 0.25 to about 25 mm" and "the slits are aligned with their major axes essentially parallel to a common direction on the web surface" (*specification page 8, lines 25-29*). The specification is silent about the width of the slits in the minor axes, except for the ratio of major axis to minor axis to minor axis is greater than about 25 (*specification page 9, lines 3-12*). Furthermore, the figures in the application show that the width of the slit in the minor axes is negligible, i.e. there is no open space between the edges of the slit, when the web is not under a tensile force.

Nakahata discloses that the length of the slit in the major axes (*longitudinal direction*) is from about 1.0 mm to about 100 mm (*col. 15, lines 6-7*). Also, figure 2 of Nakahata shows that the width of the slit in the minor axes (*lateral direction*) is negligible, i.e. there is no open space between the edges of the slit, when the web is not under a tensile force.

The slits of Nakahata are characterized by a major and a minor axes (*figure 2*) and since Nakahata has the same slit length in the major axes, i.e. about 1.0 mm to about 100 mm, and the same slit width in the minor axes, i.e. negligible, the slits of Nakahata are deemed to have a ratio of the major to minor axes (the aspect ratio) being more than about 5.

The limitation "the stretchable web has a porosity of greater than about 1.0 ($m^3/m^2/min$) when stretched to 50% elongation" is a functional limitation and is deemed to be a latent property of the prior art since the prior art is substantially identical in composition and/or structure. MPEP 2145 (II). The Examiner's basis for this assertion is that Nakahata's web is stretchable (*extensible*) with applicant's claimed slit ratio. Also, Nakahata's web has an opening area of from about 1.0 mm^2 to 2500 mm^2 under tensile force (*col. 15, lines 26-28*) and a trans-topsheet capacity of at least about 0.6 g/in^2 (*col. 16, lines 16-19*).

Regarding Applicant's claims 2 and 3, Nakahata discloses that the slits are aligned with their major axes oriented at an angle within 30°, more specifically within 15°, of a common direction on the web surface (*col. 15, lines 57-59 and figures 2 and 10*).

Regarding Applicant's claim 4, Nakahata discloses that the slits are aligned each with their major axes essentially parallel to a common direction on the web surface (*col. 14 lines 4-5 and figure 2*).

Regarding Applicant's claim 5, since Nakahata has the same slit length in the major axes, i.e. about 1.0 mm to about 100 mm, and the same slit width in the minor axes, i.e. negligible, the slits of Nakahata are deemed to have a ratio of the major axis to the minor axis of at least one of the plurality of slits is greater than about 25 (*see above discussion about aspect ratio*).

Regarding Applicant's claim 6, Nakahata discloses that the slits are positioned randomly within any one or more of said regions in the web (*col. 15, lines 20-25*).

Regarding Applicant's claim 7, Nakahata discloses that the arrangement of slits within any one or more of said regions is organized in an array, the array comprising rows of slits that are essentially parallel in their major axes (*col. 15, lines 20-25 and figure 2*).

Regarding Applicant's claim 8, Nakahata is deemed to have an array with hexagonal symmetry such that the row offset value RO = SS/2, where SS is the relative slit separation, since Nakahata discloses that the slits are may have a pattern that is not precisely aligned (*col. 15, lines 20-25*) and the longitudinal offset of the slits is from about 0 mm to about 100 mm and the transverse spacing between about 0 mm and 10 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 9, Nakahata is deemed to have an array with rectangular symmetry such that the row offset value RO = 0 (zero), , since Nakahata discloses that the slits are may have a pattern that is not precisely aligned (*col. 15, lines 20-25*) and the longitudinal offset of the slits is from about 0 mm to about 100 (*col. 15, lines 5-19*).

Regarding Applicant's claim 10, Nakahata disclose that the array has a staggered configuration (*col. 15, line 24*) such that the row offset value RO is not equal to SS/2, where SS is the relative slit separation, since Nakahata discloses that the longitudinal offset of the slits is from about 0 mm to about 100 mm and the transverse spacing between about 0 mm and 10 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 11, Nakahata discloses that the value of the relative row separation of the array RS, is between about –0.9 and about 10.0, since Nakahata discloses that the transverse spacing between about 0 mm and 10 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 12, Nakahata discloses that the relative row offset value of RO is less than about 0.5, since Nakahata discloses that the longitudinal offset of the slits is from about 0 mm to about 100 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 13, Nakahata discloses that the slits have a length from about 1.0 mm to about 100 mm, longitudinal spacing from 0 to about 10.0 mm, and a transverse

spacing from 0 to about 10.0 mm (*col. 15, lines 5-19*). Therefore the number density of slits per square inch within one or more of the regions is between about 2 and about 625, which meets Applicant's claimed range "between about 5 and about 1000."

Regarding Applicant's claim 14, Nakahata discloses that the slits have a length from about 1.0 mm to about 100 mm, longitudinal spacing from 0 to about 10.0 mm, and a transverse spacing from 0 to about 10.0 mm (*col. 15, lines 5-19*). Therefore the total length of slits per square inch within any one or more of the regions is between about 0.35 and about 24.6 inches/square inch, which meets Applicant's claimed range "between about 0.5 and 50 inches/square inch."

Regarding Applicant's claims 15-19, Nakahata discloses that the web can be used in such articles as an absorbent article, disposable diaper, incontinences article, elastic bandage or sanitary article (*col. 3, lines 19-22*).

Regarding Applicant's claim 20, Nakahat discloses a composite material comprising a web (*extensible topsheet, col. 13, lines 6-7*) bonded to a secondary web (*backsheet, col. 4, line 13*).

Regarding Applicant's claim 21, Nakahata discloses that the secondary web comprises a nonwoven fabric (*col. 4, lines 27-30*).

Regarding Applicant's claim 22, the limitation "wherein the webs are bonded either by vacuum lamination or by adhesive lamination" is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Applicant presents evidence from which the Examiner could reasonably conclude that the

claimed product differs in kind from those of the prior art. MPEP 2113. Furthermore, there does not appear to be a difference between the prior art structure and the structure resulting from the claimed method because Nakahata discloses a composite material comprising a web bonded to a secondary web.

Regarding Applicant's claim 23, Nakahata discloses that the secondary webs are nonwoven fabrics that are extensible in a common direction of the stretchable web (*col. 4, lines 45-46*).

Regarding Applicant's claim 24, Nakahata discloses an elastic web (*extensible topsheet, col. 13, lines 6-7*) which is deemed to have a top surface and a bottom surface, the web comprising one or more regions having a multiplicity of slits (*col. 14, lines 2-3 and figure 2*).

Each slit connects the tops surface to the bottom surface (*col. 14 line 3*). The slits are aligned with their major axes oriented at an angle within 45° of a common direction (*longitudinal direction, col. 14, lines 4-8*) on the web surface (*col. 15, lines 57-59 and figures 2 and 10*). The slits open when a tensile force is applied to the web along the common direction (*col. 14, lined 60-64*).

Applicant's specification discloses that "[i]n a preferred embodiment of the web, the lengths of the major axes of the slits are in the ranges of about 0.25 to about 25 mm" and "the slits are aligned with their major axes essentially parallel to a common direction on the web surface" (*specification page 8, lines 25-29*). The specification is silent about the width of the slits in the minor axes, except for the ratio of major axis to minor axis to minor axis is greater than about 25 (*specification page 9, lines 3-12*). Furthermore, the figures in the application show

that the width of the slit in the minor axes is negligible, i.e. there is no open space between the edges of the slit, when the web is not under a tensile force.

Nakahata discloses that the length of the slit in the major axes (*longitudinal direction*) is from about 1.0 mm to about 100 mm (*col. 15, lines 6-7*). Also, figure 2 of Nakahata shows that the width of the slit in the minor axes (*lateral direction*) is negligible, i.e. there is no open space between the edges of the slit, when the web is not under a tensile force.

The slits of Nakahata are characterized by a major and a minor axes (*figure 2*) and since Nakahata has the same slit length in the major axes, i.e. about 1.0 mm to about 100 mm, and the same slit width in the minor axes, i.e. negligible; the slits of Nakahata are deemed to have a ratio of the major to minor axes (the aspect ratio) being more than about 5.

The limitation "the region has an open area of greater than 1% when stretched to 100% elongation" is a functional limitation and is deemed to be a latent property of the prior art since the prior art is substantially identical in composition and/or structure. MPEP 2145 (II). The Examiner's basis for this assertion is that Nakahata's web is elastic (*extensible*) with applicant's claimed slit ratio. Also, Nakahata's web has an opening area of from about 1.0 mm^2 to 2500 mm^2 under tensile force (*col. 15, lines 26-28*) and a trans-topsheet capacity of at least about 0.6 g/in^2 (*col. 16, lines 16-19*).

Regarding Applicant's claims 25 and 26, Nakahata discloses that the slits are aligned with their major axes oriented at an angle within 30°, more specifically within 15°, of a common direction on the web surface (*col. 15, lines 57-59 and figures 2 and 10*).

Regarding Applicant's claim 27, Nakahata discloses that the slits are aligned each with their major axes essentially parallel to a common direction on the web surface (*col. 14lines4-5 and figure 2*).

Regarding Applicant's claim 28, since Nakahata has the same slit length in the major axes, i.e. about 1.0 mm to about 100 mm, and the same slit width in the minor axes, i.e. negligible, the slits of Nakahata are deemed to have a ratio of the major axis to the minor axis of at least one of the plurality of slits is greater than about 25 (*see above discussion about aspect ratio*).

Regarding Applicant's claim 29, Nakahata discloses that the slits are positioned randomly within any one or more of said regions in the web (*col. 15, lines 20-25*).

Regarding Applicant's claim 30, Nakahata discloses that the arrangement of slits within any one or more of said regions is organized in an array, the array comprising rows of slits that are essentially parallel in their major axes (*col. 15, lines 20-25 and figure 2*).

Regarding Applicant's claim 31, Nakahata is deemed to have an array with hexagonal symmetry such that the row offset value RO = SS/2, where SS is the relative slit separation, since Nakahata discloses that the slits are may have a pattern that is not precisely aligned (*col. 15, lines 20-25*) and the longitudinal offset of the slits is from about 0 mm to about 100 mm and the transverse spacing between about 0 mm and 10 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 32, Nakahata is deemed to have an array with rectangular symmetry such that the row offset value RO = 0 (zero), , since Nakahata discloses that the slits are may have a pattern that is not precisely aligned (*col. 15, lines 20-25*) and the longitudinal offset of the slits is from about 0 mm to about 100 (*col. 15, lines 5-19*).

Regarding Applicant's claim 33, Nakahata disclose that the array has a staggered configuration (*col. 15, line 24*) such that the row offset value RO is not equal to SS/2, where SS is the relative slit separation, since Nakahata discloses that the longitudinal offset of the slits is from about 0 mm to about 100 mm and the transverse spacing between about 0 mm and 10 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 34, Nakahata discloses that the value of the relative row separation of the array RS, is between about –0.9 and about 10.0, since Nakahata discloses that the transverse spacing between about 0 mm and 10 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 35, Nakahata discloses that the relative row offset value of RO is less than about 0.5, since Nakahata discloses that the longitudinal offset of the slits is from about 0 mm to about 100 mm (*col. 15, lines 5-19*).

Regarding Applicant's claim 36, Nakahata discloses that the slits have a length from about 1.0 mm to about 100 mm, longitudinal spacing from 0 to about 10.0 mm, and a transverse spacing from 0 to about 10.0 mm (*col. 15, lines 5-19*). Therefore the number density of slits per square inch within one or more of the regions is between about 2 and about 625, which meets Applicant's claimed range "between about 5 and about 1000."

Regarding Applicant's claim 37, Nakahata discloses that the slits have a length from about 1.0 mm to about 100 mm, longitudinal spacing from 0 to about 10.0 mm, and a transverse spacing from 0 to about 10.0 mm (*col. 15, lines 5-19*). Therefore the total length of slits per square inch within any one or more of the regions is between about 0.35 and about 24.6 inches/square inch, which meets Applicant's claimed range "between about 0.5 and 50 inches/square inch."

Regarding Applicant's claims 38-42, Nakahata discloses that the web can be used in such articles as an absorbent article, disposable diaper, incontinences article, elastic bandage or sanitary article (*col. 3, lines 19-22*).

Regarding Applicant's claim 43, Nakahat discloses a composite material comprising a web (*extensible topsheet, col. 13, lines 6-7*) bonded to a secondary web (*backsheet, col. 4, line 13*).

Regarding Applicant's claim 44, Nakahata discloses that the secondary web comprises a nonwoven fabric (*col. 4, lines 27-30*).

Regarding Applicant's claim 45, the limitation "wherein the webs are bonded either by vacuum lamination or by adhesive lamination" is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Applicant presents evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. MPEP 2113. Furthermore, there does not appear to be a difference between the prior art structure and the structure resulting from the claimed method because Nakahata discloses a composite material comprising a web bonded to a secondary web.

Regarding Applicant's claim 46, Nakahata discloses that the secondary webs are nonwoven fabrics that are extensible in a common direction of the stretchable web (*col. 4, lines 45-46*).

Regarding Applicant's claims 47-50, Nakahata discloses that the slit length is within the range of from about 0.25 to about 25 mm, more specifically from about 2.5 to about 6.25 mm (*col. 15, lines 6-7*).

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Chevalier

11/12/04